From: Overbay, Michael

To: "peter.pope@rrc.state.tx.us" Subject: FW: map for your use

Monday, January 27, 2014 3:14:00 PM

Attachments: methane pattern.docx

Hi Peter.

I received this on Friday evening from Dr. Geoffrey Thyne. He has identified a possible fault from the apparent linear alignment of the majority of the potentially impacted wells. He anticipates producing a scientific paper for publication utilizing this and other data later this year.

Michael Overbay, P.G.

Regional Groundwater Center Coordinator US Environmental Protection Agency, Region 6 (214)665-6482

From: Geoffrey Thyne (b) (6)
Sent: Friday, January 24, 2014 5:23 PM

To: Steven Lipsky; Overbay, Michael; Brett Shipp

Subject: map for your use

Mr. Lipsky,

Thanks for the conversation today. I look forward to any documentation concerning the methane issue in your well that you will share with me. As I mentioned I am preparing a paper for submission to a scientific publication and appreciate any information you can provide. I have been fortunate to have help from the NRDC with the FOIA process and been able to get some of the data.

You asked me about the possible effect of a geologic fault on your situation. I have attached a rough map I made using the Range data I have from the FOIA process. The dotted line is the most likely orientation of a fault in your area. The two yellow lines are the approximate subsurface locations of the gas well boreholes. Your wells are labeled DOM1 and DOM 1A. As you can see there appears to be a trend of elevated and increasing with time methane in the water wells along this potential fault line. I do not have any data from the Range sampling on your wells since late 2010, but assume you will be seeing increasing levels as well.

You also asked about the difference between the Range and Duke methane values. In my opinion the Duke sampling methods are more accurate and you should accept their numbers as more representative of the actual methane levels in the wells. Their values also are consistent with the observations of bubbling/fizzing in the wells, while the Range values are too low to explain the physical evidence.

Hope you find this helpful,

Geoff

Geoffrey Thyne PhD PG

(b) (6)